

AMENDMENT TO THE CLAIMS

1. - 46. (Previously Canceled)

47. (Currently Amended) A method of providing an answer to a user supplied natural language question based on stored information on a computer-readable medium comprising:

receiving a user supplied natural language question via a computer user interface in which the user supplied natural language question includes a question word;

generating an analyzed question comprised of syntactic and morphological categories derived from the user supplied natural language question;

determining which question pattern from a table of predetermined questions patterns corresponds to the analyzed question by matching ~~the order and type of~~ syntactic and morphological categories derived from the user supplied natural language question to ~~the order and type of~~ syntactic and morphological categories of the predetermined question patterns wherein the table of predetermined question patterns is comprised of a set of phrases that have been derived through transformations to have a different structure but the same informational content as a specific declarative sentence or an appropriate question word substituted in the phrase;

replacing the question word with at least one partially unspecified term that is conceptually related to the question word and the answer;

transforming the question pattern into an affirmative statement pattern that is parallel in structure to an answer to the user supplied natural language question and includes: (i) syntactic and morphological categories; and (ii) the at least one partially unspecified term;

generating a partially unspecified query based on the affirmative statement pattern, the partially unspecified query containing the at least one partially unspecified term; and

determining at least one answer to the user supplied natural language question by matching the partially unspecified query to the stored information wherein the at least one partially unspecified term is further matched to a specific term in the stored information.

48. (Previously Presented) The method of claim 47, wherein the transforming a question pattern into an affirmative statement pattern uses syntactic frames.

49. (Previously Presented) The method of claim 47, wherein the stored information comprises a set of documents and an index identifying which documents within the set of documents contain terms or groups of terms answering the partially unspecified query.

50. (Previously Presented) The method of claim 49 further comprising collecting the answer from matching the partially unspecified query across a plurality of documents in the stored information.

51. (Previously Presented) The method of claim 47 further comprising ranking the at least one answer according to their frequency of matching.

52. (Previously Presented) The method of claim 47, wherein transforming the question pattern into an affirmative statement pattern further comprises replacing a generic syntactic or morphological category with one or more corresponding elements from the user supplied natural language question.

53. (Previously Presented) The method of claim 47, wherein the affirmative statement pattern is transformed into more than one partially unspecified query in accordance with a mapping of the question word to more than one conceptually related partially unspecified terms.

54. (Currently Amended) A tangible computer readable medium storing a computer program product for providing an answer to a user supplied natural language question based on stored information comprising:

computer program code for receiving a user supplied natural language question via a computer user interface in which the user supplied natural language question includes a question word;

computer program code for generating an analyzed question comprised of syntactic and morphological categories derived from the user supplied natural language question;

computer program code for determining which question pattern from a table of predetermined questions patterns corresponds to the analyzed question by matching ~~the order and type of~~ syntactic and morphological categories derived from the user supplied natural language question to ~~the order and type of~~ syntactic and morphological categories of the predetermined question patterns wherein the table of predetermined question patterns is comprised of a set of phrases that have been derived through transformations to have a different structure but the same informational content as a specific declarative sentence or an appropriate question word substituted in the phrase;

computer program code for replacing the question word with at least one partially unspecified term that is conceptually related to the question word and the answer;

computer program code for transforming the question pattern into an affirmative statement pattern that is parallel in structure to an answer to the user supplied natural language question and includes: (i) syntactic and morphological categories; and (ii) the at least one partially unspecified term;

computer program code for generating a partially unspecified query based on the affirmative statement pattern, the partially unspecified query containing the at least one partially unspecified term; and

computer program code for determining at least one answer to the user supplied natural language question by matching the partially unspecified query to the stored information wherein the at least one partially unspecified term is further matched to a specific term in the stored information.

55. (Currently Amended) The tangible computer readable medium storing a computer program product of claim 54, wherein the computer program code for transforming a question pattern into an affirmative statement pattern uses syntactic frames.

56. (Currently Amended) The tangible computer readable medium storing a computer program product of claim 54, wherein the stored information comprises a set of documents and an index identifying which documents within the set of documents contain terms or groups of terms answering the partially unspecified query.

57. (Currently Amended) The tangible computer readable medium storing a computer program product of claim 56 further comprising computer program code for collecting the answer from matching the partially unspecified query across a plurality of documents in the stored information.

58. (Currently Amended) The tangible computer readable medium storing a computer program product of claim 54 further comprising computer program code for ranking the at least one answer according to their frequency of matching.

59. (Currently Amended) The tangible computer readable medium storing a computer program product of claim 54, wherein the computer program code for transforming the question pattern into an affirmative statement pattern further comprises computer program code for replacing a generic syntactic or morphological category with one or more corresponding elements from the user supplied natural language question.

60. (Currently Amended) The tangible computer readable medium storing a computer program product of claim 54, wherein the affirmative statement pattern is transformed into more than one partially unspecified query in accordance with a mapping of the question word to more than one conceptually related partially unspecified terms.